ABSTRACT

GENERATING A CYCLIC SEQUENCE OF FREQUENCIES.

A specific cyclic sequence of frequencies for use as a carrier hop sequence by a mobile station in a mobile radio communication system is chosen from a list of usable frequencies by means of a sequence of indices derived from the unique identifier of the mobile station. The indices are used to indicate respective positions in the list and hence to choose a succession of frequencies to make up one cycle of the cyclic sequence. The list is updated between successive choices of a frequency therefrom, making it possible to ensure, by appropriate exclusions from the list each time, that the succession of frequencies chosen satisfies predetermined constraints such as minimum hop distance and minimum stay-away time, either absolutely or to the maximum extent possible. Each index i may be derived from the unique identifier ID by means of an expression of the form $i = |f(ID,M)|$ modulo W, where M is the ordinal number, in the succession of frequencies, of the frequency being selected by that index and W is the current length of the list.

(Figure: none)